### DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. underneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled

POLYPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND USING SAME

☐ the specification of which is attached h  to the specification of which was filed in	ereto unless one of the following boxethe United States on April 3, 1996	es is checked: as Application Serial No. 0	08/630,915 (for dickgration and accommunity
with amendment(s) filed on			
☐ the specification was filed as PCT inter PCT Article 19 on	national application Serial No	on	and was amended under
I hereby state that I have reviewed and uncamendment referred to above.	lerstand the contents of the above iden	itified specification, including	g the claims, as amended by any
I acknowledge the duty to disclose informat §1.56.	ion known to me to be material to pate	entability as defined in Title 3	37, Code of Federal Regulations,
I hereby claim foreign priority benefits und certificate listed below and have also identi- of the application on which priority is claim		9(a)-(d) of any foreign applic patent or inventor's certificat	cation(s) for patent or inventor's te having a filing date before that
			t ef
EARLIEST FOREIGN APPLICA	TION(S), IF ANY, FILED PRIOR T	O THE FILING DATE OF	THE APPLICATION

APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)		DRITY IMED
· · · · · · · · · · · · · · · · · · ·			YES 🗆	NO 🗆
			YES 🗆	NO 🗆

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below.

APPLICATION NUMBER	FILING DATE

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NO.	FILING D. CT		STATUS	
	FILING DATE	PATENTED	PENDING	ABANDONED
08/417,872	April 7, 1995		х	
	·			

SEN	D CORRESPONDEN	ICE TO: PENNIE & EDMONDS 1155 AVENUE OF TH NEW YORK, N.Y. 100	E AMERICAS PENNIE	TELEPHONE CAL & EDMONDS DOC -2803	
	FULL NAME OF INVENTOR	LAST NAME Sparks	FIRST NAME Andrew	MIDDLE NAME B.	
2 0 1	RESIDENCE & CITIZENSHIP	ctry Pikesville	state or foreign country Maryland	COUNTRY OF CITIZENS	IIP
	POST OFFICE ADDRESS	STREET 24 Breton Hill Road, Apt. 1A	CITY Pikesville	STATE OR COUNTRY Maryland	ZIP CODE 21208
	FULL NAME OF INVENTOR	LAST NAME Hoffman	FIRST NAME Noah	MIDDLE NAME	-
0 2	RESIDENCE & CITIZENSHIP	CITY Greensboro	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENS	ПР
_	POST OFFICE ADDRESS	STREET 5001 Manning Drive	Greensboro	STATE OR COUNTRY North Carolina	27410
	FULL NAME OF INVENTOR	LAST NAME Kay	FIRST NAME Brian	MIDDLE NAME K.	· · · · · · · · · · · · · · · · · · ·
2 0 3	RESIDENCE & CITIZENSHIP	стт Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSS U.S.A.	np ·
	POST OFFICE ADDRESS	STREET 18 Wysteria Way	CITY Chapel Hill	STATE OR COUNTRY North Carolina	27514 141
	FULL NAME OF INVENTOR	LAST NAME Fowlkes	FIRST NAME Dana	MIDDLE NAME M.	* :
2 0 4	RESIDENCE & CITIZENSHIP	CITY Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSS U.S.A.	ПР
	POST OFFICE ADDRESS	STREET 2013 Damascus Church Drive	стү Chapel Hill	STATE OR COUNTRY North Carolina	27516
	FULL NAME OF INVENTOR	LAST NAME McConnell	FIRST NAME Stephen	MIDDLE NAME  J.	
2 · 0 5	RESIDENCE & CITIZENSHIP	спу San Diego	STATE OR FOREIGN COUNTRY California	COUNTRY OF CITIZENSS U.S.A.	RIP
	POST OFFICE ADDRESS	STREET 10211 Camino Ruiz #52	CITY San Diego	STATE OR COUNTRY California	2IP CODE 92126
	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME	
0	RESIDENCE & CITIZENSHIP	СПУ	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENS	iiP
	POST OFFICE ADDRESS	STREET	спу	STATE OR COUNTRY	ZIP CODE

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
ANDREW B. SPARKS W	NOAH HOFFMAN	BRIAN K. KAY
B/27/96	DATE	DATE
SIGNATURE OF INVENTOR 204	SIGNATURE OF INVENTOR 203	SIGNATURE OF INVENTOR 206
DANA M. FOWLKES	STEPHEN J. McCONNELL	·
DATE	DATE	DATE

### DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. underneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled

POLIPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST	AND METHODS OF IDENTIFYING AND USING SAME
The specification of which is an at the specification of which is an at the specification of which is a second of the specification of	

☐ the specification of which is attached here ☑ the specification of which was filed in the	to unless one of the following United States on <u>April 3, 19</u>	boxes is checked: 96 as Application Serial No.	. <u>08/630,915</u> or .	declaration not accompanying
with amendment(s) filed on	(if applicable)		٠	
the specification was filed as PCT internation PCT Article 19 on	ional application Scrial No	on	and w	as amended under
I hereby state that I have reviewed and unders amendment referred to above.	stand the contents of the above	identified specification, includ	ling the claims, a	s amended by any
I acknowledge the duty to disclose information §1.56.	known to me to be material to	patentability as defined in Titl	e 37, Code of Fed	deral Regulations,
I hereby claim foreign priority benefits under certificate listed below and have also identified of the application on which priority is claimed		§119(a)-(d) of any foreign app for patent or inventor's certific	olication(s) for pa	tent or inventor's g date before that
EARLIEST FOREIGN APPLICATION	ON(S), IF ANY, FILED PRIC	OR TO THE FILING DATE (	OF THE APPLIC	ATION
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIOI CLAI	RITY
		16	YES 🗆	NO 🗆
·			YES 🗆	№ □
hereby claim the benefit under Title 35, Unit	ted States Code, §119(e) of an	y United States provisional ap	plication(s) listed	below.
APPLICATION NUMBER		FILING	DATE	

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NO.	EU ING DAME	STATUS		
	FILING DATE	PATENTED	PENDING	ABANDONED
08/417,872	April 7, 1995		x	

SEN	D CORRESPONDEN	CE TO: PENNIE & EDMONDS 1155 AVENUE OF THE NEW YORK, N.Y. 1003	AMERICAS PENNIE	TELEPHONE CALLS TO: & EDMONDS DOCKETING -2803
	FULL NAME OF INVENTOR	LAST NAME Sparks	FIRST NAME Andrew	MIDDLE NAME B.
2 0 1	RESIDENCE & CITIZENSHIP	Camboro PLICESVILLE	STATE OR FOREIGN COUNTRY  North Carolina	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET LIGHTON LICLED 201 Blue Ridge Road APT 14	Camboro PIKESVILLE	STATE OR COUNTRY ZIP CODE  North Carolina 27510 21208
	FULL NAME OF INVENTOR	LAST NAME Hoffman	FIRST NAME Noah	MIDDLE NAME
2 0 2	RESIDENCE & CITIZENSHIP	CITY Greensboro	STATE OR FOREIGN COUNTRY North Carolina	U.S.A.
	POST OFFICE ADDRESS	STREET 5001 Manning Drive	CITY Greensboro	STATE OR COUNTRY ZIP CODE North Carolina 27410
	FULL NAME OF INVENTOR	LAST NAME Kay	FIRST NAME Brian	MIDDLE NAME K
2 0 3	RESIDENCE & CITIZENSHIP	CITY Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 18 Wysteria Way	CITY Chapel Hill	North Carolina 27514
	FULL NAME OF INVENTOR	LAST NAME Fowlkes	FIRST NAME Dana	MIDDLE NAME M.
2 0 4	RESIDENCE & CITIZENSHIP	CITY Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 2013 Damascus Church Drive	CITY Chapel Hill	North Carolina 27516
	FULL NAME OF INVENTOR	LAST NAME McConnell	FIRST NAME Stephen	MIDDLE NAME  J.
0 5	RESIDENCE & CITIZENSHIP	CITY San Diego	STATE OR FOREIGN COUNTRY California	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 10211 Carnino Ruiz #52	CITY San Diego	STATE OR COUNTRY ZIP CODE California 92126
	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
.2 0 6	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	STREET	спу	STATE OR COUNTRY ZIP CODE

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201  ANDREW B. SPARKS	NOAH HOFFMAN A Del HA	BRIAN K. KAY Dun K. Key
DATE 7/26 SIGNATURE OF INVENTOR 204	DATE 124 196 SIGNATURE OF INVENTOR 205	DATE 7/19/96 SIGNATURE OF INVENTOR 206
DANA M. FOWLKES	STEPHEN J. McCONNELL	DATE

#### DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. underneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled

POLYPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND USING SAME	
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with amendment(s) filed on	(if applicable)	•	•	
☐ the specification was filed as PCT intern PCT Article 19 on ##	ational application Serial No	on	and w	as amended under
I hereby state that I have reviewed and unde amendment referred to above.	erstand the contents of the above	dentified specification, includ	ing the claims, a	s amended by any
I acknowledge the duty to disclose informati §1.56.	on known to me to be material to	patentability as defined in Titl	e 37, Code of Fe	deral Regulations
hereby claim foreign priority benefits und certificate listed below and have also identified the application on which priority is claim EARLIEST FOREIGN APPLICATION.	ed below any foreign application led:	for patent or inventor's certific	cate having a filir	ng date before that
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIO CLAI	RITY
* .			YES 🗆	NO 🗆
			YES 🗆	№ □
hereby claim the benefit under Title 35, U	nited States Code, §119(e) of any	United States provisional ap	plication(s) listed	below.
APPLICATION NUM	BER	FILING	DATE	
		•		

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NO.		STATUS		
AT ELECTION SERIAL NO.	FILING DATE	PATENTED	PENDING	ABANDONED
08/417,872	April 7, 1995		х	
T Y				

SEN	D CORRESPONDEN	ICE TO: PENNIE & EDMONDS 1155 AVENUE OF TH NEW YORK, N.Y. 100	E AMERICAS PENNIE	T TELEPHONE CAL E & EDMONDS DOC 0-2803	
	FULL NAME OF INVENTOR	LAST NAME Sparks	FIRST NAME Andrew	B.	
2 0 1	RESIDENCE & CITIZENSHIP	Carrboro	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSS U.S.A.	(IP
	POST OFFICE ADDRESS	STREET 201 Blue Ridge Road	Carrboro	STATE OR COUNTRY North Carolina	27510
	FULL NAME OF INVENTOR	LAST NAME Hoffman	FIRST NAME Noah	MIDDLE NAME	
2 0 2	RESIDENCE & CITIZENSHIP	Greensboro	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENS	HIP
-	POST OFFICE ADDRESS	STREET 5001 Manning Drive	Greensboro	STATE OR COUNTRY North Carolina	27410
	FULL NAME OF INVENTOR	LAST NAME Kay	FIRST NAME Brian	MIDDLE NAME K.	
2 0 3	RESIDENCE & CITIZENSHIP	спу Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSS U.S.A.	ilP
	POST OFFICE ADDRESS	STREET 18 Wysteria Way	Chapel Hill	STATE OR COUNTRY North Carolina	27514
	FULL NAME OF INVENTOR	LAST NAME Fowlkes	FIRST NAME Dana	MIDDLE NAME M.	;
2 0 4	RESIDENCE & CITIZENSHIP	спү Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENS	HP .
	POST OFFICE ADDRESS	STREET 2013 Damascus Church Drive	Ciry Chapel Hill	STATE OR COUNTRY North Carolina	27516
	FULL NAME OF INVENTOR	LAST NAME McConnell	FIRST NAME Stephen	MIDDLE NAME	·
2 0 5	RESIDENCE & CITIZENSHIP	CITY San Diego	STATE OR FOREIGN COUNTRY  California	COUNTRY OF CITIZENSS U.S.A.	HIP
	POST OFFICE ADDRESS	STREET 10211 Camino Ruiz #52	CITY San Diego	state or country California	ZIP CODE 92126
	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	. MIDDLE NAME	•
2 0 6	RESIDENCE & CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENS	(IP
	POST OFFICE ADDRESS	STREET	СПУ	STATE OR COUNTRY	ZIP CODE

I hereby deciare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
ANDREW B. SPARKS	NOAH HOFFMAN	BRIAN K. KAY
DATE	DATE	DATE
SIGNATURE OF INVENTOR 204	SIGNATURE OF INVENTOR 205	SIGNATURE OF INVENTOR 206
DANA M. FOWLKES CHA TWOKE	STEPHEN J. McCONNELL	
Dum 24, 1996	DATE	DATE

# DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. underneath my name.

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POLYPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND USING S	AME
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☐ the specification of which is attached here  the specification of which was filed in the	eto unless one of the following United States on <u>April 3, 19</u>	boxes is checked: 96 as Application Serial No.	08/630,915 Gar	declaration not accompanying
with amendment(s) filed on	(if applicable)		•	
☐ the specification was filed as PCT internat PCT Article 19 on	ional application Serial No	on	and w	as amended under
I hereby state that I have reviewed and undersamendment referred to above.	stand the contents of the above	identified specification, includ	ing the claims, a	s amended by any
acknowledge the duty to disclose information \$1.56.	n known to me to be material to	patentability as defined in Title	= 37, Code of Fe	deral Regulations,
hereby claim foreign priority benefits under certificate listed below and have also identified of the application on which priority is claimed	d:	for patent or inventor's certific	eate having a filir	ng date before that
EARLIEST FOREIGN APPLICATI	ON(S), IF ANY, FILED PRI	OR TO THE FILING DATE O	F THE APPLIC	CATION
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIO CLAI	RITY IMED
			YES 🗆	ИО □
·			YES 🗆	NO □.
hereby claim the benefit under Title 35, Uni	ited States Code, §119(e) of ar	ny United States provisional ap	plication(s) listed	i below.
APPLICATION NUMB	ER	FILING 1	DATE	

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APPLICATION SERIAL NO.		STATUS		·
AT EICHTION SERIAL NO.	FILING DATE	PATENTED	PENDING	ABANDONED
08/417,872	April 7, 1995		x	

SEND CORRESPONDENCE TO: PENNIE & EDMONDS DIRECT TELEPHONE CALLS TO: 1155 AVENUE OF THE AMERICAS PENNIE & EDMONDS DOCKETING NEW YORK, N.Y. 10036-2711 (212) 790-2803				
	FULL NAME OF INVENTOR	LAST NAME Sparks	FIRST NAME Andrew	MIDDLE NAME B.
2 0 1	RESIDENCE &	Carrboro	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 201 Blue Ridge Road	CITY Carrboro	STATE OR COUNTRY ZIP CODE North Carolina 27510
	FULL NAME OF INVENTOR	LAST NAME Hoffman	FIRST NAME Noah	MIDDLE NAME
2 0 2	RESIDENCE & CITIZENSHIP	Greensboro	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 5001 Manning Drive	стту Greensboro	STATE OR COUNTRY ZIP CODE North Carolina 27410
	FULL NAME OF INVENTOR	LAST NAME Kay	FIRST NAME Brian	MIDDLE NAME K.
2 0 3	RESIDENCE & CITIZENSHIP	стү Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 18 Wysteria Way	CITY Chapel Hill	North Carolina 27514
	FULL NAME OF INVENTOR	LAST NAME Fowlkes	FIRST NAME Dana	MIDDLE NAME M.
0 4	RESIDENCE & CITIZENSHIP	спу Chapel Hill	STATE OR FOREIGN COUNTRY North Carolina	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 2013 Damascus Church Drive	CITY Chapel Hill	STATE OR COUNTRY ZIP CODE North Carolina 27516
	FULL NAME OF INVENTOR	LAST NAME McConnell	FIRST NAME Stephen	MIDDLE NAME  J.
0 5	RESIDENCE & CITIZENSHIP	CITY San Diego	STATE OR FOREIGN COUNTRY  California	COUNTRY OF CITIZENSHIP U.S.A.
	POST OFFICE ADDRESS	STREET 10211 Camino Ruiz #52	San Diego	STATE OR COUNTRY ZIP CODE California 92126
	FULL NAME OF INVENTOR	LAST NAME	FIRST NAME	MIDDLE NAME
0 6	RESIDENCE & CITIZENSHIP	спу	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
	POST OFFICE ADDRESS	STREET .	спу	STATE OR COUNTRY ZIP CODE

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SIGNATURE OF INVENTOR 201	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
ANDREW B. SPARKS	NOAH HOFFMAN	BRIAN K. KAY
DATE	Start om Connell	DATE
SIGNATURE OF INVENTOR 204	SIGNATURE OF INVENTOR 203	SIGNATURE OF INVENTOR 206
DANA M. FOWLKES	STEPHEN J. McCONNELL	
DATE .	7/8/96	DATE .

## **ASSIGNMENT**

WHEREAS, WE, ANDREW B. SPARKS, NOAH HOFFMAN, and BRIAN K. KAY, ASSIGNORS, citizens of the United States, residing at 201 Blue Ridge Road, Carrboro, North Carolina, 27510; 5001 Manning Drive, Greensboro, North Carolina 27410; and 18 Wysteria Way, Chapel Hill, North Carolina 27514; respectively, are co-inventors with Dana M. Fowlkes and Stephen J. McConnell of the invention in POLYPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND USING SAME for which we have executed an application for a Patent of the United States
□ which is executed on □ even date herewith or □(date)
which is identified by Pennie & Edmonds docket no. 1101-174 which was filed on April 3, 1996, Serial No. 08/630,915
and WHEREAS, THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, having an address at Office of Technology and Develoment, CB#4100, 302 Bynum Hall, Chapel Hill, North Carolina 27599-4100, U.S.A., hereinafter ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:
NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;
AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.
AND WE HEREBY covenant and agree that we have full right to convey our entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.
AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.
IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.
Date 7/26/96, 1996 ANDREW B. SPARKS
Date 124/96, 1996 NOAH HOFFMAN L.S.
Date 7/19, 1996 Buin K. Kay L.S.
BRIAN K. KAY
State of Margland) City County of Baltime  On this 56th day of the State and County aforesaid, personally appeared ANDREW B. SPARKS  On this 1996, before me, a Notary Public in and for the State and County aforesaid, personally appeared ANDREW B. SPARKS
to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.
Barbare A. Lel Try rominin espir 9/1/97 Notary Public.
I will see when it is it is

State of North Carolina)
State of North Carolina) County of Durlam SS.:
On this 24H day of July County aforesaid, personally appeared NOAH HOFFMAN  NOAH HOFFMAN
to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.
My Commission Expires: 3/43/2000
State of north (arolina)
State of North (arolina) County of Durham SS.:
On this 19th day of July 1996, before me, a Notary Public in and for the State and County aforesaid, personally appeared BRIAN K. KAY
to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed
Dons B. Lemy
My Commission Expires: 3/13 Notary Public.

## **ASSIGNMENT**

WHEREAS, WE, DANA M. FOWLKES and STEPHEN J. McCONNELL, ASSIGNORS, citizens of the United States, residing at 2013 Damascus Church Drive, Chapel Hill, North Carolina 27516 and 10211 Camino Ruiz #52, San Diego, California 92126 respectively, are co-inventors with Andrew B. Sparks, Noah Hoffman, and Brian K. Kay of the invention in POLYPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND USING SAME for which we have executed an application for a Patent of the United States
□ which is executed on □ even date herewith or □(date)
which is identified by Pennie & Edmonds docket no. 1101-174 which was filed on April 3, 1996, Serial No. 08/630,915
and WHEREAS, CYTOGEN CORPORATION, having an address at 600 College Road East, Princeton, New Jersey 08540, U.S.A., hereinafter ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:
NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;
AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.
AND WE HEREBY covenant and agree that we have full right to convey our entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.
AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.
IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.  Date
Date Sept 12, 1996 Stacy Alkely Witnessed by Witnessed by
Date, 1996L.S. STEPHEN J. McCONNELL
State of )
County of SS.:
On this day of, 1996, before me, a Notary Public in and for the State and
County aforesaid, personally appeared <u>STEPHEN J. McCONNELL</u> , to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public.

## **ASSIGNMENT**

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WHEREAS, WE, DANA M. FOWLKES and STEPHEN J. McCONNELL, ASSIGNORS, citizens of the United States, residing at 2013 Damascus Church Drive, Chapel Hill, North Carolina 27516 and 10211 Camino Ruiz #52, Sar Diego, California 92126 respectively, are co-inventors with Andrew B. Sparks, Noah Hoffman, and Brian K. Kay of the invention in POLYPEPTIDES HAVING A FUNCTIONAL DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND USING SAME for which we have executed an application for a Patent of the United States
□ which is executed on □ even date herewith or □(date)
which is identified by Pennie & Edmonds docket no. 1101-174 which was filed on April 3, 1996, Serial No. 08/630,915
and WHEREAS, CYTOGEN CORPORATION, having an address at 600 College Road East, Princeton, New Jersey 08540, U.S.A., hereinafter ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:
NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;
AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.
AND WE HEREBY covenant and agree that we have full right to convey our entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.
AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.
IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.
Date, 1996
Date 7/8, 1996 Stephen J. M. Connell L.S. STEPHEN J. McCONNELL
State of ) County of ) SS.:
On this day of, 1996, before me, a Notary Public in and for the State and County aforesaid, personally appeared DANA M. FOWLKES
to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public.

State of California )

County of San Dugo)

SS.:

On this day of July 1996, before me, a Notary Public in and for the State and County aforesaid, personally appeared STEPHEN J. McCONNELL to me known and known to me to be the person of that name who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public.